

September 19, 2001

Administrator
U.S. Department of Transportation
400 Seventh Street, S.W.
Nassif Building, Room PL-401
Washington, D.C. 20590-0001

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DEPT OF TRANSPORTATION

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PETITION TO AMEND FMVSS #108

The Society of Automotive Engineers' newest SAE J1432, which details SAE's Specifications for Center High Mounted Brake Lights (CHMSLs), has been re-written to **allow the Physical "Combining" of the CHMSL with the three Mandated* I.D. ("Identification") Lights.** *Mandated by FMVSS #108 on all Vehicles Over 80" in Width.

This new SAE Specification maintains "Conspicuity" of each Signal by requiring the CHMSL to emit at least three to five times (depending on direction) the amount of Light that the I.D. Lights emit.

As this New Specification is printed in the latest "2001 SAE Ground Vehicle Lighting Standards Manual"*, it has to be asked ... "Are Vehicle Lighting Manufacturers and the Public to assume this **Combining Allowance** has been sanctioned by both NHTSA's Standards (Rulemaking) and Compliance Departments in the form of an official "Legal Interpretation", or as an "Amendment to FMVSS #108"? **I have not been able to locate any details about this using NHTSA's Website, nor anywhere else.** *Page 169 attached.

Over the past 15 years, I know NHTSA **has been adamant about "not" allowing any other Lights to be mounted "in the same housing" with a Center, High Mounted Brake Light,** so therefore, **I'm confused as to when and how this Combination has come to be allowed** and specifically how and when the Public was informed that this 15 year old "Same Housing" Regulation had been rescinded.

In any case ... I'd like to personally endorse this Combining Concept, which, I believe, does indeed make Economic and Safety Sense, that is - "if" this Combination is allowed to be used on all over 80" Wide Vehicles and simultaneously **allowed to be lowered downwards for Eye Level viewing.**

Unfortunately, it appears to me this Combination Allowance was derived by Automotive Engineers and okayed by NHTSA only for use on the small quantity of "Dually" (Dual Wheel), very wide, types of Pickup Trucks that are made annually for U.S., Canada and Mexico markets, and **was not specifically intended for use on "Big Rigs", Motorhomes and other Large (over 80" wide) RVs, and Utility Trailers.**

The first part of my Petition is asking that this Physical "Combination Allowance" be clearly stated in an Amendment to FMVSS #108, thereby making it absolutely clear to everyone concerned that this Combination is a recognized Regulation.

Surprisingly, since 3rd Brake Lights are still not Mandated on Large Vehicles over 80" in Width*, most Large Vehicle Manufacturers will not voluntarily provide 3rd Brake Lights on new vehicles unless there is no financial reason not to provide them. So, **if NHTSA, simultaneously, allows this Combination to be moved downward**** where it would be Conspicuously located and where CHMSLs are proven to be most effective ... the financial incentive would then exist for this concept to be adopted by virtually all Large Vehicle Manufacturers.

*Presently, only Autos & Pickups are Mandated to use 3rd Brake Lights.

**From "As High as Practical" ... which represents the existing Mandated Requirement.

This "Moving Down" Amendment request represents the 2nd Part of my Petition.

There have been numerous Public and Federally Financed Tests performed that prove the "Centered, Eye Level" Location is where following Drivers focus most of their Conscience and/or Subconscious Attention, and therefore is the most "Conspicuous" and the most effective place to locate all rear Signal Vehicle Lights*.

* Except "Clearance" Lights ... which should represent "Extreme Width" ... while also located at Eye Level.

If both of these Amendments are implemented, Motorhome and Trailer Manufacturers will soon see that the "Combining" and "Eye Level" placement of these Lights **"in the Same Housing",** will save enough money in wiring and hook up effort as well as in housing and installation expenses to literally pay for the added CHMSL and therefore **would encourage them to supply all of their Vehicles with eye level CHMSLs** inexpensively "Combined" with the Mandated I.D. Lights.

They would conclude there would be, at worst, only a slight extra expense and more likely, zero extra expense when all savings are considered. **Therefore, the Public (all of us) would get these added Safety Features virtually free!**

Problem is ... the Standards and Compliance Personnel at NHTSA continue to require that all Rear I.D. 3 Light Clusters and Clearance Lights to be mounted "as High as Practical"*, not only on Big Rigs, but on Large Motorhomes and Trailers as well; whereas, considering current "Real World" circumstances ... all of these Lights **should actually be "required" to be lowered, down to where they'd do some good.** After all ... Mandated 3 I.D. Light Clusters, as well as Clearance Lights, that are mounted 13 feet above the Highway, still consume power (and therefore gasoline) and it's impossible to justify their **"reasons for being" where they are now Mandated to be located.** *Mandated by FMVSS #108.

The Mid-1900's reasoning for Mandating I.D. and Clearance Lights to be mounted **"as High as Practical"** was primarily for ... "visually checking a vehicles' height in order to avoid hitting a Bridge or Overhang", and ... "for following Traffic to spot slow moving Trucks cresting steep hills". However, **in the year 2001 ... neither of these reasons make sense**, as today ... Motorhomes, RVs, Utility Trailers and even "Big Rigs", routinely travel as fast as regular traffic and - Big Vehicles no longer need (nor use) these Lights to visually clear Bridges and Overhangs and, for sometime, Steep Hill Crests have been leveled. **Therefore, we have to ask ... "What good are these Lights doing for us when mounted 13' above the Ground?"**

Furthermore, considering the menacing nature of Large, Slower Moving Vehicles during Rain, Snow, and Dust Storms ... the Public and NHTSA should insist that these Vehicles are as "seeable" (Conspicuous) as they can get them, and putting Lights 13' high...far above eye level...is not Conspicuous, particularly under today's Up-Close, High-Speed Driving Conditions where most avoidable crashes occur.

I experienced a sudden Dust Storm on Interstate 5 in California a few years ago and I nearly plowed into the back of a Big Truck because his Lights were too dim*, too few and located nowhere near eye level. I concluded that NHTSA's 30 year old Laws that allow Big Rig Rear Lights to be located as Low as 15 inches and as High as 13 feet, represents a form of "Negligence" that only Lawyers realize and take advantage of - when people are decapitated in these kinds of crashes ... "This is Nuts".

*Another Petition needed on this subject

Common Sense dictates that if I.D. Lights are to make any sense whatsoever, they should be allowed to be lowered down to where they are "Conspicuous" to the following Automobile Drivers. After all, as your Legal Council is aware ... **"CONSPICUOSITY"** ... is the Main Objective derived from the 1966 Vehicle Safety Act as it pertains to the location of Safety Lights.

Allowing these two Common Sense Improvements to FMVSS #108 will not only greatly increase Conspicuity, but will also encourage all large Vehicle Manufacturers to provide proven, Safety Enhancing CHMSLs on our roads that wouldn't ordinarily exist; that is ... if they're allowed to be economically Combined with the already Mandated 3 I.D. Light Cluster as this New SAE Specification outlines, and ... at the same time ...allowed to be lowered to Eye Level.

All of this will be possible **at no or very little increase in cost to the Vehicle Manufacturer**, and therefore, **at virtually no extra dollar expense to the Public**, while giving all of us better and safer driving conditions.

I ask that this Petition be expediently Granted and printed in the Federal Register for Public Comment and then soon afterwards be implemented in FMVSS #108.

Sincerely,



Dennis G. Moore, President
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Enclosures
Return Envelope
Copy of SAE J1432 Revised MAR2000

- 6.1.6.1 Any multiple lamp arrangement may be used to meet the photometric requirements of a high-mounted stop lamp. If multiple lamp arrangements are used and the distance between adjacent light sources does not exceed 560 mm for two-lamp arrangements and does not exceed 410 mm for three-lamp arrangements, then the combination of the lamps may be used to meet the photometric requirements of Table 1. If the distance between adjacent light sources exceeds the above dimensions, each lamp shall comply with the photometric requirements of Table 1.
- 6.1.6.2 When a clearance lamp or identification lamp is combined with a high-mounted stop lamp, the lamp's intensity shall be not less than three times the luminous intensity of the clearance lamp or identification lamp at any test point, except that at H-V, H-5L, H-5R, 5U-V, and 5D-V, the high-mounted stop lamp's intensity shall be not less than five times the luminous intensity of the clearance lamp or identification lamp.
- 6.1.6.3 When a clearance lamp or identification lamp is combined with a high-mounted stop lamp and the maximum intensity of the clearance lamp or identification lamp is located on or below the horizontal and is within an area generated by a 1.0 degree radius around the test point, the ratio for the test point may be computed using the lowest value of the clearance lamp or identification lamp luminous intensity within the generated area.
- 6.2 **Color**—The color of the light from the high-mounted stop lamp shall be red as specified in SAE J578.
- 6.3 **Plastic Materials**—The plastic materials used in the optical parts shall meet the requirements of SAE J576.

TABLE 1—PHOTOMETRIC REQUIREMENTS⁽¹⁾⁽²⁾

Zone	Test Points (degrees)		Minimum Luminous Intensity (cd) ⁽³⁾	Zone Total Luminous Intensity (cd) ⁽⁴⁾
I	5U	V	25	125
	H	5L	25	
	H	V	25	
	H	5R	25	
	5D	V	25	
II	5U	5R	25	98
	5U	10R	16	
	H	10R	16	
	5D	10R	16	
	5D	5R	25	
III	5U	5L	25	98
	5U	10L	16	
	H	10L	16	
	5D	10L	16	
	5D	5L	25	
IV	10L		8	32
	10D	V	16	
	10R		8	
Maximum Luminous Intensity (cd) ⁽⁵⁾⁽⁶⁾				130

- Multiple lamp arrangement requirements of 6.1.6.1 apply.
- Ratio requirements of 6.1.6.2 apply.
- The measured values at each individual test point shall not be less than 60% of the required minimum value shown for that individual test point location.
- The sum of the luminous intensity measurements at each test point within a zone shall not be less than the Zone Total Luminous Intensity shown.
- The listed maximum shall not be exceeded over any area larger than that generated by a 0.5 degree radius within the solid angle defined by the test points.
- Maximum Intensity requirements of 6.1.6.3 apply.